

Revised June, 1967

Bulletin 407



COOPERATIVE EXTENSION SERVICE
THE OHIO STATE UNIVERSITY

Ohio

AGRICULTURE



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OHIO'S AGRICULTURAL industry includes farming and much more. Agribusiness involves the thousands of people in processing, wholesaling and retailing farm products, and the added thousands who supply farmers with production materials. All these areas are important to every one of the 10½ million people in Ohio.

In looking at the components of agriculture or agribusiness, we have chosen the following types of farm products: (1) food, (2) wood, (3) tobacco, and (4) leather. Not included in this Ohio analysis are such important items as textile products.

In any completely objective analysis of Ohio agriculture, one recognizes that

many agribusiness items that are processed and marketed in Ohio are not produced here. Conversely, some processing and marketing of Ohio farm products is carried on in other states.

One thing stands out. Agribusiness in Ohio is *BIG* business! Those working in farming and in the thousands of other agribusiness firms in Ohio need some understanding of all areas of agriculture. It is for this reason that we present Ohio Agriculture in five parts:

1. *Farming*
2. *Processing of Farm Products*
3. *Wholesaling of Farm Products*
4. *Retailing of Farm Products*
5. *Farm Production Supply and Service*



LAND

Ohio agriculture is characterized by its diversity and by its readily available markets. Ohio is located between the industrial East and the agricultural Midwest, and shares in the advantages of both. Western Ohio is flat and typical of much of the land in the Corn Belt of the U.S. Northeastern Ohio land is rolling. Southern and southeastern Ohio counties are

in a general farming area and are quite hilly. The varieties in soil type and land resources throughout Ohio provide a large variety of economic opportunities.

The accompanying map of Ohio indicates the major sources of cash income from farming in each of the three areas outlined. For the state, dairying is the number one source of income, making up 18 percent of the total. Hogs rank second,

and cattle and calves third. It needs to be pointed out that many crops are grown to be fed to livestock and so are not counted in the above calculation.

Land in farms in Ohio has decreased from 21½ million acres in 1930 to 17½ million now. Much of this resulted from land going to more intensive uses, such as shopping centers, housing areas and highways. Some less productive land is going out of farm production and into less intensive uses such as parks and federal forest areas.

Since 1900, the percentage of Ohio's land in farms has declined from 94 percent to less than 70 percent. Each year, about 250,000 acres of land are taken out of farms for other uses. This amounts to nearly 1½ percent annually. Of the land going out of farm use each year, less than 100,000 acres, or 40 percent of the total being taken out, is actually cropland. The remainder is from non-cropland or pasture. Over many years, acres harvested have not changed as much as some people believe. Only slightly less cropland is available for cropping now as compared with 1950. This is due in part to diverting acres formerly used for woodlots and pasture feed to harvested crops. In addition, government programs have diverted a substantial number of acres.

The number of farms in Ohio is declining at the rate of about three percent each year. In 1965, the census indicated a total of 120,000 farms. By 1970, it is estimated that the total will be 100,000.

LABOR

Labor in farming is decreasing. One million people lived on farms in Ohio in 1930. Now, about 500,000 people live on farms. This is less than five percent of the total Ohio population. Further declines are expected to occur in the next 10 years.

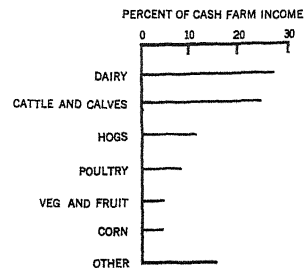
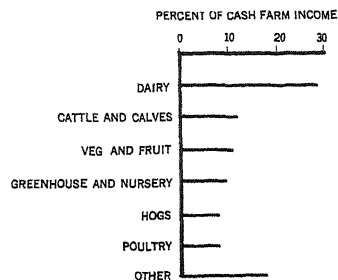
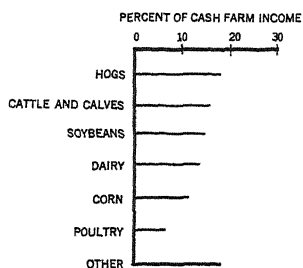
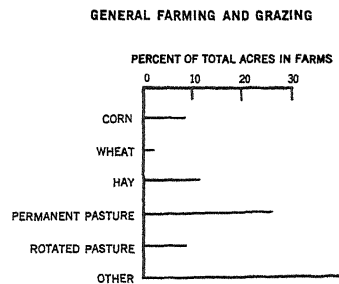
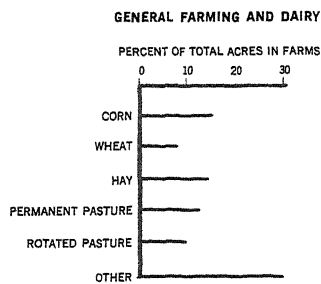
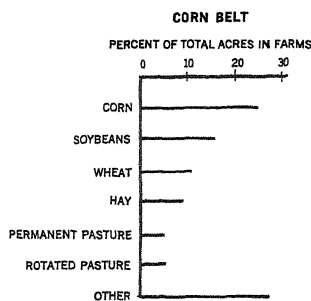
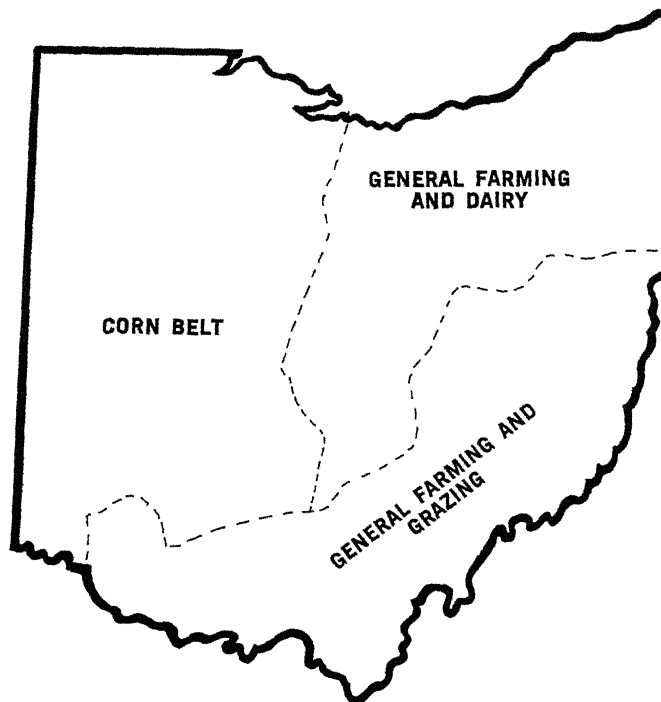
Farming in Ohio is still basically a family operation. Farm account records indicate that the average commercial farm business in western Ohio requires 1.6 men per year. This compares with 1.9 man-years 25 years ago. Of the total labor force in farming, 13 percent is hired labor.

Each family operates many more acres than a few years ago. The average farm size in Ohio now is 146 acres compared with 99 acres in 1945. Each commercial farm averages about 200 acres, and the average size is increasing each year.

INVESTMENT

Investment in farming has increased tremendously in recent years. It used to be possible to begin farming with a few hundred dollars. Now, the investment in Ohio farms averages over \$60,000, and many Ohio farms have an investment of over \$125,000. In fact, it is not uncommon for a farmer to have an investment of one quarter million dollars. Total capital invested in Ohio's farming operations is estimated to be over \$7.4 billion. This includes investment in land, buildings, machinery and equipment.

Ohio's total land area.....	41,000 square miles or 26 million acres—35th in U.S.
Land in farms.....	17½ million acres—23rd in U.S.
Cropland harvested.....	9.3 million acres—11th in U.S.
Percent of land in farms.....	67 percent—12th in U.S.
Number of farms.....	120,000—9th in U.S.
Average size of farms.....	146 acres
Number of paid employees.....	22,000
Gross sales of farm products.....	\$1.3 billion



MANAGEMENT

The need for improved management skills and abilities is increasing in farming. Ohio farmers are adopting new techniques of production rapidly. In the U.S., production per farmer has increased more rapidly in the past generation than in any other generation. This means that good management becomes even more essential for those farmers who stay in farming. Adequate farm records are becoming increasingly important in helping farm managers to make wise adjustments in their operations.

TOTAL FARM PRODUCTION

Farming in Ohio is a growing and dynamic business. The volume of production of many Ohio farm products has increased greatly during the last 15 years. Also, production is quite diversified. A recent publication, "Ohio Farm Income for 1965," lists more than 50 farm commodities from which over \$100,000 cash receipts from sales were received by Ohio farmers. Total returns from farm sales were estimated to be \$1,306,005,000 in 1966. This is a 17 percent increase over the 1965 gross returns.

As a producer of all farm products, Ohio ranks in the top fourth among the

OHIO FARM PRODUCTION AND VALUE 1966

Selected
Commodities¹

Commodity	Volume of Production 1966	Value of Production 1966	Rank in U.S. Volume
Corn (grain)	262 mil. bu.	\$340.2 mil.	6
Milk	4.9 bil. lb.	250.8 mil.	8
Hogs ²	821 mil. lb.	192.2 mil.	7
Soybeans (beans)	60 mil. bu.	168.0 mil.	7
Cattle and calves ²	655 mil. lb.	144.5 mil.	17
Hay	3.6 mil. tons	88.9 mil.	13
Wheat (soft Red Winter)	46 mil. bu.	78.9 mil.	1
Eggs	190 mil. doz.	70.3 mil.	13
Greenhouse and Nursery ³		51.5 mil.	3
Greenhouse vegetables	22.0 mil. sq. ft.	15.1 mil.	1
Florist products		24.3 mil.	4
Nursery		12.1 mil.	3
Oats	33 mil. bu.	23.2 mil.	7
Tomatoes (fresh and proc)	29,100 acres	16.2 mil.	2 ⁵
Turkeys	68 mil. lb.	15.8 mil.	12
Tobacco	22.9 mil. lb.	12.6 mil.	10
Burley Tobacco	17.5 mil. lb.	11.2 mil.	5
Sheep and Lambs	38 mil. lb.	8.6 mil.	11
Broilers	41 mil. lb.	6.5 mil.	24
Potatoes	2.2 mil. lb.	6.0 mil.	18
Sugar beets	607,000 tons	6.0 mil.	12
Apples	2.2 mil. bu.	5.6 mil.	11
Forest Products ³		3.8 mil.	17
Chickens	36.5 mil. lb.	3.5 mil.	13
Wool	6.4 mil. lb.	3.3 mil.	11
Sweet Corn (fresh)	13,000 acres	3.2 mil.	6
Grapes	16,000 tons	2.2 mil.	6
Popcorn	64.6 mil. lb.	1.8 mil.	4
Red Clover Seed	8.5 mil. lb.	1.7 mil.	2
Peaches ⁴	500 thous. bu.	1.4 mil.	15
Honey	6.1 mil. lb.	1.2 mil.	15

¹ Commodities excluded with value under \$1 million.

² Adjustments made for in-shippments and changes in inventory.

³ 1964 Census of Agriculture data, value of sales.

⁴ 1965 figures used because of freeze in 1966.

⁵ Rank in processing tomatoes.

Source: Statistical Reporting Service, USDA

**SOURCES
OF
INCOME
FROM
FARM
SALES,
1966**

	Income	% of Total
Dairy	\$ 240,371,000	18%
Hogs	186,490,000	14%
Beef	185,331,000	14%
Corn	176,882,000	14%
Soybeans	162,613,000	12%
Poultry and Eggs	92,628,000	7%
Wheat	72,654,000	6%
Vegetables	64,213,000	5%
Greenhouse and Nursery	59,065,000	4%
Other	65,758,000	6%
TOTAL	\$1,306,005,000	100%

50 states of the nation. In the production of some important products such as soft red winter wheat, vegetables grown under glass, and total greenhouse area used for horticulture specialties, Ohio ranks number one in the nation. In terms of sales of farm products, farming in Ohio is approaching a \$1½ billion business.

PRODUCTION EXPENSES

Production expenses of Ohio farmers increased 45 percent in the last 15 years. In

1965, the total production expenses of \$934 million were 70 percent of gross income from farming. This gross income includes not only that from sales of farm products, but also value of home consumption of food and rental of buildings plus government payments. Although such expenditures are extremely important to the economy of Ohio's communities, they do indicate that much of the gross returns from farming are not used for farm family living.

**PRODUCTION
EXPENSES
OF
FARM
OPERATORS
IN
OHIO
1950
AND
1965**

	1950 (Mil. of \$)	1965 (Mil. of \$)
Feed	114.7	173.1
Livestock	25.8	55.3
Seed ¹	21.1	21.7
Fertilizer and Lime	46.8	72.0
Repairs and Operation of Capital Items ²	119.4	136.6
Miscellaneous ³	54.6	101.2
Hired Labor ⁴	64.8	47.9
Total Current Operating Expenses	447.2	607.8
Depreciation and other Consumption		
Farm Capital ⁵	117.8	197.9
Taxes on Farm Property	28.3	67.9
Interest on Farm Mortgage	11.1	34.8
Net Rent to Non-Farm Landlords	40.2	25.7
Total Production Expenses	644.6	934.1

¹ Includes bulbs, plants, and trees.

² Repairs and maintenance of buildings, repairs and operation of motor vehicles and other machinery, and petroleum fuel and oil used in the farm business.

³ Includes short-term interest, pesticides, electricity, business telephone, livestock marketing charges (excluding feed and transportation), containers, milk hauling, irrigation, grazing, binding materials, veterinary service, insurance premiums, hardware.

⁴ Includes cash wages, perquisites, and Social Security paid by employers.

⁵ Depreciation and accidental damage to farm buildings and depreciation of motor vehicles and other farm machinery equipment.

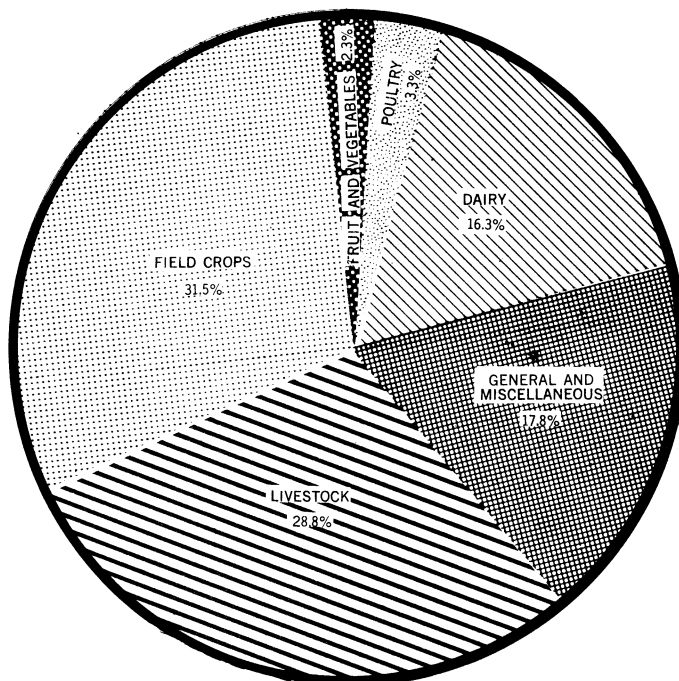
Source: Farm Income, State Summaries FIS 203, 1966, Supplement, U.S.D.A.

**NUMBER
OF
FARMS
BY
ECONOMIC
CLASS
IN
OHIO,
1949
TO
1964**

Economic Class	1949	1954	1964
Number of farms, total	199,220	177,098	120,381
Farms with sales \$10,000 and over	13,775	22,762	30,251
Farms with sales \$5,000 - \$10,000	33,211	32,497	20,307
Farms with sales \$2,500 - \$5,000	39,838	31,778	18,907
Farms with sales under \$2,500	112,243	89,937	50,916
Other farms	153	124	

Source: U.S. Census of Agriculture, 1964

PERCENTAGE OF OHIO FARMS BY TYPE OF ENTERPRISE, 1964*



Using the definition below, the 1964 Census of Agriculture indicated that 31½ percent of Ohio farms were field-crop farms, 29 percent livestock, 16 percent dairy, 3½ percent poultry, and about 2½ percent fruit and vegetable farms. The re-

maining 18 percent were classed as general and miscellaneous farms.

It is estimated that by 1974 there will be slightly over 77,000 farm units in Ohio. Nearly half of these will sell more than \$10,000 worth of farm products each. Now, about one-fourth have this much in gross sales each year. This trend re-emphasizes the fact that although numbers of farm units are decreasing, farming

*The Census of Agriculture classifies farms according to major types of enterprises. Generally speaking, in order to be classed a particular type of farm, 50 percent or more of the farm income is received from that enterprise.

in Ohio is growing by most other measurements.

Ohio farmers continue to become more specialized. Frequently, others now do some jobs that farmers used to do. One reason for this is because others can sometimes perform certain functions more efficiently than farmers. For example, farmers used to sell products directly to consumers more than they do today. It is difficult to imagine individual farmers di-

rectly supplying the food needs of all the people living in Cleveland!

People who now are doing jobs formerly done by farmers are specialists in their own right. We call them "middlemen." A look at some agricultural activities related to farming but which are not directly involved in farm production reveals that the non-farm part of agriculture is truly a significant part of Ohio's total economy.



Ohio agriculture is being strengthened by a growing food processing business. In 1963, the total value added by manufacturing of farm products was \$1,650,189,000. This compares with \$1,346,448,000 five years earlier—an increase of 22½ percent. The increase in value was despite a decrease in numbers of establishments. These dropped from 3211 to 2923 during the same five-year period. Just as farmers have become more efficient and fewer in number, so have processors of farm products.

Firms handling food and related products comprise a majority of farm product manufacturers. In Ohio, there are over 1700 such establishments employing more than 76,000 persons.

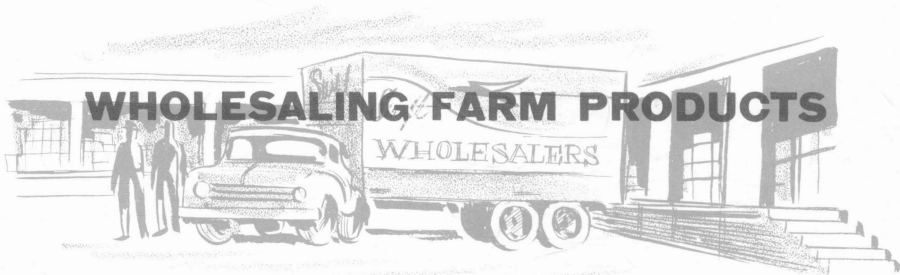
The total value of all manufacturing in Ohio in 1963 was \$15½ billion. This means that agricultural and related products accounted for well over 10 percent of the total value of all manufactured items. This is especially important when we remember that Ohio ranks third in the country in all manufacturing.

**MANUFACTURERS
OF
FARM
PRODUCTS
1963***

Kind of Business	Number of Establishments	Value Added by Manufacture (000)	Number of Employees	Payroll (000)
Food and kindred products	1,728	\$1,051,910	76,265	\$422,986
Tobacco manufacturers	12	12,975	1,118	4,060
Lumber and wood products	794	68,955	8,959	38,991
Leather and leather goods	83	67,073	9,622	38,738
Pulp, paper and products	306	449,276	37,330	233,833
Total	2,923	\$1,650,189	133,294	\$738,608

*Excludes textiles and related products

Source: U. S. Census of Manufacturers, Ohio 1963, MC 63 (3) -36



Wholesalers are specialists in buying and selling. Often, they also are involved in such activities as grading, storing, and packaging. Many wholesale activities involve commodities that have received a great amount of processing. Wholesaling frequently occurs at more than one stage of the marketing system. For example, it requires many transactions to make wheat into cake mix or finished cakes, soybeans into steering wheels, trees into office desks, or animal hides into shoes. All are dependent, at least in part, on the farmer who grew the raw material.

In 1963, there was a total of 3818 incorporated wholesale establishments in Ohio dealing in farm products. This is a very slight increase over the number active

five years earlier. Estimated sales were over \$5 billion, up 17 percent.

The largest number of wholesalers of farm products are those selling "grocery and related products." Sales, at wholesale, of these products total well over \$2 billion each year, with a payroll of \$107,555,000.

In addition to the incorporated establishments, there are 1762 unincorporated wholesalers of farm products in Ohio.

Types of businesses that wholesale farm products vary widely throughout Ohio. They range from grocery wholesalers to wholesalers of leather and leather products, and from tobacco distributors to lumber dealers.

A high degree of efficiency in wholesaling is essential to farmers, to consumers, and to the general economy of Ohio.

**WHOLESALE
TRADE
OF
AGRICULTURAL
PRODUCTS
1963***

Kind of Business	No. of Incorporated Establishments	Sales (000)	No. Employees Inc. Estab.	Payroll Inc. Establishment (000)	Uninc. Active Proprietor
Groceries and related products	1,585	\$2,307,158	19,229	\$107,555	973
Farm products—raw materials	651	1,164,909	4,543	19,029	261
Tobacco and products	141	241,991	1,735	8,223	81
Paper and products	416	489,488	5,619	34,309	141
Furniture—home furn.	352	280,238	3,144	19,525	124
Lumber—construction materials	673	611,670	7,762	50,069	182
Total	3,818	\$5,095,462	42,032	\$238,710	1,762

*Excludes dry goods and apparel stores

Source: U. S. Census of Business, 1963, Wholesale Trade, Ohio BC 63-WA



RETAILING FARM PRODUCTS

Retailers of farm products are the last step from the farmer to the consumer. Their job is to assemble and display those products in such a way that they are desired by the consumer and at a price he is willing to pay. Competition is keen among retailers of farm products in Ohio and the U.S. Thousands of retailers handle millions of products.

Just as is true with farmers, some retailers are not always able to make satisfactory net incomes. For example, in Ohio there are fewer small grocery stores than there were a few years ago. As with wholesalers, retailers handle large numbers of items that have been changed

greatly from the time they left the farm.

In 1963, Ohio had nearly 40,000 incorporated retail establishments and another 35,000 unincorporated businesses selling agricultural products. The incorporated retailers hired more than 193,000 employees and had more than \$5 billion in product sales. Annual payroll from these stores totaled more than \$570 million in 1963, compared with \$478 million just five years earlier. Actually, although the number of establishments dropped between 1958 and 1963, the volume of sales, number of employees, and total payroll all increased considerably.

RETAIL TRADE OF AGRICULTURAL PRODUCTS 1963*

Kind of Business	No. of Incorporated Establishments	Sales by Inc. Establishment (000)	Employees of Inc. Establishment	Annual Payroll (000)	Uninc. Active Proprietor
Food Stores	15,767	\$3,147,148	72,234	\$236,669	14,474
Eating and drinking places	18,232	1,001,931	96,154	214,696	17,064
Lumber and other building materials	1,432	386,694	10,050	50,677	782
Home furniture	2,566	345,109	10,898	51,264	1,989
Farm, garden and feed supplies	1,285	242,168	4,524	17,980	936
Total	39,282	\$5,123,050	193,860	\$571,286	35,245

*Excludes apparel stores

Source: U. S. Census of Business, Retail Trade, 1963, Ohio



Thousands of people are involved in supplying farmers with production materials. For example, there are over 1600 retail farm equipment dealers in Ohio, including both incorporated and unincorporated establishments. In addition, there are such diverse kinds of supply businesses as agricultural chemical manufacturers, wood working machinery manufacturers, and farm machinery and equipment repair services.

No complete inventory of this important group has been made in Ohio. It is estimated, however, that there are over 250,000 full and part time workers in the farm supply and service field. When one considers the many services such as credit, education, transportation, and insurance, this estimate seems very reasonable. These and many others influence and are influenced by farmers.

**SOME
SELECTED
SUPPLY
AND
SERVICE
BUSINESSES,
OHIO,
1963***

Kind of Business	No. of Establishments Incorporated	Value Added or Sales (000)	Employees of Inc. Establishment	Annual Payroll (000)	Uninc. Active Proprietor
Farm Equipment Dealers—Retail	823	\$134,066	2,528	\$10,984	788
Farm Supplies—Wholesale	159	127,879	1,257	6,361	73
Farm Machinery & Equip.—Mfg.	73	64,312	6,400	36,238	
Agricultural Chemicals—Mfg.	76	33,393	2,152	10,197	
Food Production Machinery—Mfg.	42	44,795	3,587	23,517	
Refrigeration Machinery—Mfg.	36	85,584	7,461	45,770	
Wood Working Machinery—Mfg.	11	4,280	352	2,552	
Paper Industry Machinery—Mfg.	12	17,225	1,425	10,372	
Farm & Garden Machinery & Equipment—Wholesale	99	134,313	1,296	8,039	34
Farm Machinery & Equip. Repair Service	108	1,632	70	261	109

*Does not include motor vehicles and equipment and other steel products, petroleum and oil, electricity, paint, credit agencies, insurance, education and transportation.

Source: U. S. Census of Business, 1963, Wholesale Trade, Retail Trade, Services, Ohio; Census of Manufacturers, Ohio, 1963.

• AGRICULTURE IS GROWING

More and more, we see the need for looking at *all* of agriculture as we discuss the future of this great industry. Agriculture is growing in Ohio! True, the number of farmers has decreased; but, by almost any other measurement, agriculture is getting larger. Nearly 25 percent of total employment in Ohio is in agriculture and related industries. It is a complex industry, offering many challenges. It is becoming more highly specialized. This is evident as we look at farm producers, farm supply, and service firms and middlemen, each playing an important role in getting farm products to us, the consumers.

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